glomerulus was alleviated in edaravone group (62.2 ± 10.3 cells/glomerulus; $P < .01$). The number of residual tubular cells was significantly decreased in the MNMS group compared with the control (555 ± 24 vs 957 ± 44 cells/mm^2; $P < .001$). The number of residual tubular cells was maintained in the edaravone group (654 ± 38 cells/mm^2; $P = .06$).

Conclusions: MNMS was associated with significant glomerular infiltration and the enlargement of tubular cells. Edaravone may alleviate kidney damages caused by MNMS.

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PS230.

The Role of Toll-like Receptor 2 in Platelet Activation

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Objectives: Recent literature suggests that platelet function supports vessel integrity. Toll-like receptor 2 (TLR2) has been shown to be present and functionally active on platelets. We have previously demonstrated that TLR2 knockout (KO) mice hemorrhage into ischemic hindlimbs. We hypothesize that TLR2 function is required to maintain angiogenic vessel integrity, possibly by promoting normal platelet function.

Methods: Blood from C57BL/6 (control) and TLR2-KO mice was obtained by cardiac puncture. In some experiments, control C57BL/6 mice were treated with anti-TLR2 antibody and control immunoglobulin G. Platelets were separated and washed, and treated with 1 U/mL thrombin, 50 ng/mL phorbol-myristate acetate (PMA), 100μM calcium ionophore A23187, and 30μM thrombin receptor-activating peptide (TRAP6). Fixed platelets were stained with fluorescent antibodies to β-3 of the glycoprotein (GP)IIb/IIIa complex, and P-selectin, a platelet-activation marker. Activation was assessed using flow cytometry.

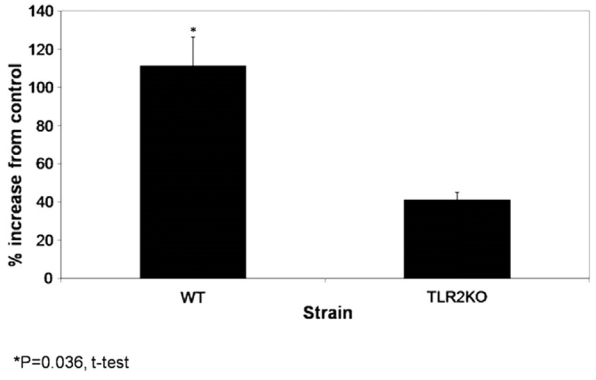

Fig. TLR2KO mice demonstrate less platelet P-selectin expression compared to control in response to thrombin.

Results: Platelets from TLR2KO mice had less P-selectin expression in response to thrombin than controls ($P = .036$; Fig). However, compared with controls, activation with TRAP6 and calcium ionophore resulted in higher P-selectin expression in both TLR2KO mice ($P = .056$) and TLR2 antibody-treated mice ($P = .0009$).

Conclusions: These data indicate that innate immune receptors on platelets modulate activation in a context-specific manner. Further research is necessary to delineate the role of platelet-mediated innate immune responses in angiogenesis after ischemia.

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PS232.

Complications Associated With IVC Filters: A large, Single Institution Review

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Objectives: To quantify and evaluate the complications arising from indwelling inferior vena cava (IVC) filters through the examination of incidentally performed computed tomography (CT) scans.

Methods: A retrospective review was conducted of all patients who had an IVC filter placed at our institution from January 1, 2000, to December 31, 2011. All patients who had incidental CT studies in which the IVC filter was visible and which were performed at least 6 months after placement were included. Two observers independently evaluated the CT scans. Filter model as well as IVC penetration, erosion, migration, filter fracture, and other complications were recorded. Penetration of the IVC was defined by at least one strut of the device being >4 mm outside of the IVC wall.

Results: A total of 1470 filters of eight different models were inserted in the specified time period. Of these, 66% were retrievable, 6.9% were removed, and 0.8% failed removal. The number of these patients who had had incidental CT studies performed in which the IVC filters were visible was 335 (22.7%, n 1-60; range, 1 month-10 years). Filter penetration of the IVC was observed in 129 (38.5%) of the filters seen on subsequent CT scans, which further calculates to a known overall perforation rate of 9% for the entire series. IVC penetration was observed in 42 of 163 Optease filters (26%), 41 of 107 Trapease filters (38%), 25 of 29 G2/G2X filters (86%), 9 of 14 Greenfield filters (64%), 1 of 9 Vena-Tech filters (11%), 6 of 8 Celect filters (75%), 3 of 3 Eclipse filters, (100%), and 2 of 2 Tulip filters (100%).

Conclusions: IVC filters were found to have a high rate of IVC penetration when observed through incidental CT scans. Further prospective studies and programs are needed to increase IVC filter retrieval rate.

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